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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT E. HAINES

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Appeal 2009-000760  
Application 09/976,630  
Technology Center 2400

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Decided: March 9, 2010

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Before LEE E. BARRETT, HOWARD B. BLANKENSHIP, and  
DEBRA K. STEPHENS, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-36, which are all of the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

*Invention*

Appellant's invention relates to a method of configuring a hard copy output engine. The method includes downloading data including a configuration plug-in and configuration data, each including user-specified information, and configuring the hard copy output engine using the downloaded data. Abstract.

*Representative Claims*

1. A method of configuring a hard copy output engine comprising:  
downloading data including a configuration plug-in and configuration data each including user-specified information; and  
configuring the hard copy output engine using the downloaded data.
21. A computer instruction signal embodied in a carrier wave carrying instructions that when executed by a processor cause the processor to:  
download data including a configuration plug-in and configuration data each including user-specified information; and  
configure a hard copy output engine using the downloaded data.

*Prior Art*

Uchida	6,317,570 B1	Nov. 13, 2001
Kageyama	6,333,790 B1	Dec. 25, 2001
Engel	2002/0198969 A1	Dec. 26, 2002

*Examiner's Rejections*

Claims 21-27 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-3, 5-9, 12-17, 19-22, and 25-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kageyama and Engel.

Claims 4, 10, 11, 18, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kageyama, Engel, and Uchida.

PRINCIPAL ISSUES

- (1) Has Appellant shown that the Examiner erred in finding that a signal embodied in a carrier wave is non-statutory subject matter?
- (2) Has Appellant shown that the Examiner erred in finding that the combination of Kageyama and Engel teaches downloading data including a configuration plug-in and configuration data each including user-specified information?

FINDINGS OF FACT

*Kageyama*

1. Kageyama discloses a printing system that includes a network, a first computer connected to the network, a second computer connected to the network, and a printer connected to the network. The first computer instructs the printer to print. The printer includes a printer controller and a printer engine. The printer controller includes an individual printer management part for managing the printer, and an individual printer information DB part. The second computer includes a total printer

management service processing part for managing a plurality of printers including the printer connected to the network, and a total printer management information DB part. The second computer communicates with the printer controller and/or the first computer over the network to manage the printer to cope with trouble in the printer, order consumable items and replacement parts for the printer, and update programs and data for using the printer. Abstract.

2. A ROM memory 604 stores an initial boot-up program (also called an IPL (initial program loading) program) for the printer controller 2100 and part of a character font. The RAM memory 60A stores (a) a printer controller control program, (b) the remainder of the character font, (c) a command buffer memory, (d) a page buffer memory, and (e) various kinds of management tables, such as a page buffer management table and a printer management table, and others. Among these, the programs (a) and (b) are stored by downloading from any one of the computers 300 or 400 using the IPL program described above. Fig. 6; col. 9, ll. 15-25.

3. It is assumed that the printer manufacturer has updated programs and data for the printer controller used in the printer 200. For example, programs for the printer controller may have been updated to improve printing performance of the printer controller, and/or to add or change a printing function (color printing function, middle tone printing function, or compressed image data printing function) of the printer controller. Further, as the data for the printer controller, a solid black pattern, a line pattern, font data, and so on may have been added or changed. In such a case, the printer manufacturer registers and stores updated

programs and updated data in the second computer 400 which manages all of the printers of the manufacturer (process 1301). Col. 13, ll. 55-67.

4. The second computer 400 transmits information for proposing updating of the programs and the data for the printer 200 to the printer controller 2100 (process 1302). The information includes an explanation of the contents of the updating and a recommendation for accepting the updating, and a method of requesting the updating. The printer controller 2100 transmits the contents of the proposal to the first computer 300 (process 1303). Col. 14, ll. 1-13.

5. The first computer 300 transmits information concerning the request for updating to the printer controller 2100 in order to request updating of the programs and the data (process 1304). The request is made at the time when the user of the first computer 300 finds the information concerning the proposed updating corresponding to the information of the process 1303 on a screen of the first computer 300 or the like. Then, the printer controller 2100 forwards the contents of the request to the second computer 400 (process 1305). Col. 14, ll. 14-23.

6. It is also possible for the second computer 400 to propose the updating of the programs and the data directly to the user of the first computer 300. Col. 15, ll. 26-30.

7. As shown in FIG. 10, register information 10A, printer operation information 10B, use information on each consumable article 10C, operation information on each part 10D, and other information 10E in regard to the printer 200 are stored in the DB part 2121. Each item of information 10A, 10B, 10C, 10D, and 10E is constructed as described in FIG. 10. In a case where the printer engine is of an electrophotographic type using a laser

optical system, paper (on a size-by-size basis), toner, the photosensitive drum, cleaner, and so on are managed as consumable articles, and the printer controller, optical system parts (semiconductor laser, polygon mirror and so on), the fixing unit, and so on are managed as replaceable parts. Fig. 10; col. 5, l. 66 to col. 6, l. 11.

8. The printer engine 2200 monitors and stores the status of consumable articles used in printing while performing printing processing. In a case where the printer mechanism is of an electrophotographic type, the consumable articles are paper, toner, the photosensitive drum, cleaner, and so on. In a case where the printer mechanism is of an ink jet type, the consumable articles are paper and ink. In a case where the printer mechanism is of the shuttle impact type, the consumable articles are paper and a ribbon. Col. 11, ll. 13-20.

9. The printer controller 2100 receives a signal indicating the status of consumable articles in the printer engine, and stores the status of consumable articles in the individual printer information DB part (process 801). Col. 11, ll. 21-24.

10. Based on the contents of the individual printer information DB part 2121 in the printer controller 2100, the first computer 300 receives information indicating a shortage of consumable articles in the printer engine 2200 from the printer controller 2100 (process 802). Col. 11, ll. 30-33.

11. Then, the first computer 300 places an order for the consumable articles which are in short supply to the printer controller 2100 (process 803). The order is placed using the user interface of the first computer 300 when the first computer 300 is informed of the shortage of the consumable

articles. The printer controller 2100 forwards the order to the second computer 400 (process 806). Col. 11, ll. 40-47.

*Engel*

12. Engel discloses a method for configuring network devices under control of a configuration server. The configuration server loads an applet onto a node which is connected to a local network. The applet searches the local network for a network device. A set of network configuration parameters for the network device are then generated under control of the configuration server. The configuration server then transfers the network configuration parameters to the applet which relays them to the network device via the local network. Abstract.

13. A typical prior network device is configured using a computer system having a specialized application program which is adapted to the network device. ¶ [0006].

14. Unfortunately, the task of providing software support for such specialized application programs usually increases the costs of network device configuration. ¶ [0007].

15. A method for configuring network devices under control of a configuration server uses a configuration server that loads an applet onto a node which is connected to a local network. The applet searches the local network for network devices. A set of network configuration parameters for a found network device is generated under control of the configuration server. The configuration server then transfers the network configuration parameters to the applet which relays them to the network device via the local network. The fact that control over the configuration process resides



with the configuration server avoids the use of specialized application programs for network device configuration. ¶ [0008].

16. A web browser application 22 generates a set of network configuration parameters for the network device 40 under control of the configuration server 10. The configuration server 10 provides the network configuration parameters to the remote configuration applet 20 via the communication network 30. The remote configuration applet 20 relays the network configuration parameters onto the network device 40 via the local network 50. ¶ [0019].

17. Configuration web pages 60 guide the user through the process of generating the network configuration parameters 64. The configuration web pages 60 may include forms that enable a user to enter an address for the network device 40. The configuration web pages 60 may include forms that enable a user to enter an address for the configuration server 10. The configuration web pages 60 may include forms that enable a user to enter an address for other devices on the local network 50 such as the proxy server 16. ¶¶ [0025-0028].

18. The network device configuration web page 80 includes a hyperlink that when selected loads the remote configuration applet 20 into the node 12 and executes it. The user of the web browser application 22 generates network configuration parameters for the network devices under control of the configuration server 10. The configuration server 10 sends the network configuration parameters to the remote configuration applet 20 which relays them onto the network devices 70-71 via the local network 50. ¶ [0034].

## PRINCIPLES OF LAW

### *Statutory Subject Matter*

Our reviewing court has held that a “transitory, propagating signal . . . is not a ‘process, machine, manufacture, or composition of matter.’ Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101.” *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007). “If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful.” *Id.* at 1354.

### *Obviousness*

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

## ANALYSIS

### *Section 101 rejection of claims 21-27*

Appellant alleges that the USPTO has issued patents to others that contain “propagated signal claims.” Appellant contends that the § 101 rejection of the instant claims is a violation of Appellant’s rights under the equal protection clause of the Fourteenth Amendment to the U.S. Constitution. App. Br. 14.

However, Appellant has not cited any authority in support of the novel legal argument. The U.S. Patent and Trademark Office is not part of a state (or local) government, but an agency of the U.S. Department of Commerce. *Cf.* U.S. Const. amend. XIV, § 1 (“No State shall . . . deny to any person within its jurisdiction the equal protection of the laws.”). We are not persuaded that the USPTO has violated Appellant’s rights to equal protection of the laws under the Constitution.<sup>1</sup>

Claims 21-27 purport a “computer instruction signal embodied in a carrier wave.” The claims cover material not found in any of the four statutory categories. Therefore, claims 21-27 are directed to subject matter that falls outside the plainly expressed scope of § 101. We thus sustain the § 101 rejection of the claims.

*Section 103 rejection of claims 1, 8, 15, and 21*

Appellant contends that Kageyama does not disclose or suggest downloading configuration data including user-specified information. App. Br. 5; Reply Br. 2. Appellant further contends that the Office has failed to point to any teachings that the data in the database 2121 in printer 2100 are downloaded and are user-specified. Reply Br. 2.

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<sup>1</sup> Absent showing that the agency acted pursuant to some impermissible or arbitrary standard, an argument based on the equal protection component of the Due Process Clause of the Fifth Amendment would also fail. *See In re Boulevard Entertainment, Inc.*, 334 F.3d 1336, 1343 (Fed. Cir. 2003) (TTAB decision that affirmed the refusal to register marks containing the term “jack-off” did not violate equal protection principles, even though the USPTO had previously registered similar marks for other applicants).

However, Kageyama teaches that the printer includes program data that is stored by downloading the program data from a computer. FF 1-6. Kageyama further teaches that the program data is downloaded after a user approves a request to download the data. FF 5-6. The claim phrase “downloading data including . . . configuration data . . . including user-specified information” encompasses receiving “user-specified” approval to download program data, then downloading the user-approved data as taught by Kageyama.

Appellant contends that Engel does not disclose or suggest downloading a configuration plug-in including user-specified information. App. Br. 6-7; Reply Br. 3.

However, Engel teaches that when a user selects a hyperlink, a remote configuration applet is loaded into a node. Engel further teaches that the user generates network configuration parameters for a network device, and the applet relays the configuration parameters to the network device. FF 16-18. The claim phrase “downloading data including a configuration plug-in . . . including user-specified information” encompasses a user selecting a hyperlink that loads a remote configuration applet, then using the applet to relay user-specified configuration parameters to the network device as taught by Engel.

Appellant contends that the Examiner has not shown that installing the device of Kageyama onto a network using the applet of Engel would save costs over conventional approaches that use specialized installation programs. App. Br. 8-9; Reply Br. 4. In particular, Appellant contends that Appellant has failed to uncover any teachings in Kageyama that the

arrangements of Kageyama use specialized application programs to install network devices. Reply Br. 4.

Kageyama teaches a printer that is installed on a network. FF 1. Appellant has provided no evidence indicating how the printer of Kageyama is installed on the network. Engel teaches the cost saving benefits of installing a device on a network without using specialized application programs. FF 12-15.

Appellant's contentions appear based on the premise that Kageyama does not use a specialized application program to install the printer onto the network. If this contention is correct, then Appellant is confirming the Examiner's finding that a person of ordinary skill would apply the cost saving benefits of installing the printer of Kageyama onto the network without using a specialized application program as taught by Engel. Therefore, we find that a person of ordinary skill in this art at the time of invention would have installed the printer of Kageyama onto a network without using a specialized application program for the benefit of reducing costs as taught by Engel.

Further, installing the printer of Kageyama onto a network using the configuring method of Engel appears to represent the combination of familiar elements according to known methods that yields the predictable result of a printer installed on a network. *KSR*, 550 U.S. at 416. Appellant has provided no evidence tending to show that installing a printer onto a network using a configuration server and a remote configuration applet was "uniquely challenging or difficult for one of ordinary skill in the art." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418-19).

*Section 103 rejection of claims 2 and 7*

Appellant contends that the combination of Kageyama and Engel does not teach downloading data prepared by determining a make and model for the hard copy output engine. App. Br. 9; Reply Br. 5.

However, Kageyama discloses storing register information including printer manufacturer number and printer type name (FF 7), which at least suggests “a make and model for the hard copy output engine.” Further, the claimed “determining a make and model” does not specify who or what performs the determining, or how the determining is performed. The register information of Kageyama was “determined.” Therefore, Kageyama teaches “determining a make and model” within the meaning of claim 2.

Appellant also contends that Kageyama does not disclose or suggest determining user thresholds for consumables associated with the hard copy output engine. App. Br. 9; Reply Br. 5-6.

However, Kageyama discloses providing information indicating a shortage of consumable articles used by the printer. FF 8-11. The claimed “determining user thresholds” does not specify who or what performs the determining, or how the determining is performed. Kageyama’s information that indicates a shortage was “determined” at some point. Appellant has not provided a definition for “determining user thresholds for consumables” that excludes providing information indicating a shortage of consumable articles as taught by Kageyama. Therefore, Kageyama teaches “determining user thresholds for consumables associated with the hard copy output engine” within the meaning of claim 2.

Combining the printer make, model, and user threshold data disclosed by Kageyama with the downloaded configuration plug-in and configuration data taught by Kageyama and Engel appears to represent the combination of familiar elements according to known methods that yields the predictable result of providing make, model, and threshold data to the printer. Appellant has provided no evidence tending to show that downloading make, model, and threshold data was “uniquely challenging or difficult for one of ordinary skill in the art.”

*Section 103 rejection of claims 5, 12, 17, and 25*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest setting a threshold for an element chosen from a group consisting of pigmentation material, marking material, number of hours of operation, and number of sheets of print media consumed. App. Br. 10; Reply Br. 7-8.

However, the combination of Kageyama and Engel teaches downloading data including a configuration plug-in and configuration data each including user-specified information as discussed in the analysis of claim 1. Kageyama further discloses information indicating a shortage of consumable articles such as ink and paper (FF 8-11). Appellant has not defined “setting a threshold for an element” such as pigmentation material or number of sheets of print media to exclude information indicating a shortage of ink or paper as taught by Kageyama. Therefore, the claimed “setting a threshold for an element” encompasses providing information indicating a shortage as taught by Kageyama.

Including the threshold data as taught by Kageyama with the downloaded data taught by the combination of Kageyama and Engel appears to be the combination of familiar elements according to known methods that yields the predictable result of providing threshold data to the printer. Appellant has provided no evidence tending to show that downloading threshold data was “uniquely challenging or difficult for one of ordinary skill in the art.”

*Section 103 rejection of claims 9, 14, 16, 20, 22, and 27*

Appellant contends that the combination of Kageyama and Engel does not disclose determining user thresholds for consumables associated with the hard copy output engine. App. Br. 10; Reply Br. 6-7.

However, Kageyama discloses providing information indicating a shortage of consumable articles used by the printer (FF 8-11), which is “determin[ing] user thresholds for consumables associated with the hard copy output engine” within the meaning of claim 9. Appellant has not provided a definition for “determin[ing] user thresholds for consumables” that excludes providing information indicating a shortage of consumable articles as taught by Kageyama.

*Section 103 rejection of claim 28*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest downloading a value. Appellant further contends that the combination of Kageyama and Engel does not disclose or suggest configuring comprising setting a threshold for a consumable associated with the hard copy output engine using the value. App. Br. 11; Reply Br. 8-9.



The combination of Kageyama and Engel teaches downloading a value. FF 1-6 and 16-18. Kageyama teaches setting a threshold for a consumable associated with the hard copy output engine. FF 7-11. Using a downloaded value to set the threshold appears to represent the combination of familiar elements according to known methods that yields the predictable result of providing a threshold to the printer. Appellant has provided no evidence tending to show that downloading a value then setting a threshold indicating a shortage of a consumable using the value was “uniquely challenging or difficult for one of ordinary skill in the art.”

*Section 103 rejection of claim 29*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest downloading a threshold for replenishment of consumables associated with the hard copy output engine. App. Br. 11-12; Reply Br. 9-10.

However, the combination of Kageyama and Engel teaches downloading data including a configuration plug-in and configuration data each including user-specified information as discussed in the analysis of claim 1. Kageyama discloses a threshold for replenishment of consumables associated with the hard copy output engine (FF 8-11). Including the threshold data as taught by Kageyama with the downloaded data taught by the combination of Kageyama and Engel appears to be the combination of familiar elements according to known methods that yields the predictable result of providing threshold data to the printer. Appellant has provided no evidence tending to show that downloading threshold data was “uniquely challenging or difficult for one of ordinary skill in the art.”

*Section 103 rejection of claim 30*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest that configuring using downloaded data comprises setting the threshold for replenishment of a consumable associated with the hard copy output engine. App. Br. 12; Reply Br. 10.

However, the combination of Kageyama and Engel teaches downloading threshold data as discussed in the analysis of claim 29. Kageyama teaches setting a threshold for a consumable associated with the hard copy output engine. Using downloaded threshold data to set the threshold appears to represent the combination of familiar elements according to known methods that yields the predictable result of providing a threshold value to the printer. Appellant has provided no evidence tending to show that downloading threshold data then setting a threshold using the threshold data was “uniquely challenging or difficult for one of ordinary skill in the art.”

*Section 103 rejection of claim 31*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest providing user-specified information from a user. App. Br. 13; Reply Br. 11.

However, Engel discloses user specified information. FF 15-18.

Appellant also contends that the combination of Kageyama and Engel does not disclose or suggest generating at least one of the configuration plug-in and configuration data using the user-specified information before the downloading. App. Br. 13; Reply Br. 11.

However, Engel generates configuration data using user-specified information before the information is downloaded to the network device. FF 15-18.

*Section 103 rejection of claim 34*

Appellant contends that the combination of Kageyama and Engel does not disclose or suggest processing circuitry configured to employ a software module to set a threshold for replenishment of a consumable. App. Br. 13-14; Reply Br. 12.

However, Kageyama teaches processing circuitry that employs software to determine a shortage of a consumable (FF 7-11), which at least suggests processing circuitry configured to employ a software module to set a threshold for replenishment of a consumable within the meaning of claim 34.

*Section 103 rejection -- conclusion*

Based on our consideration of representative claims (*see* 37 C.F.R. § 41.37(c)(1)(vii)), we conclude that Appellant has not demonstrated that any claim has been rejected in error. We sustain the Examiner's rejections under 35 U.S.C. § 103(a).

**CONCLUSIONS OF LAW**

- (1) Appellant has not shown that the Examiner erred in finding that a signal embodied in a carrier wave is non-statutory subject matter.
- (2) Appellant has not shown that the Examiner erred in finding that the combination of Kageyama and Engel teaches downloading data

including a configuration plug-in and configuration data each including user-specified information.

### DECISION

The rejection of claims 21-27 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is affirmed.

The rejection of claims 1-3, 5-9, 12-17, 19-22, and 25-36 under 35 U.S.C. § 103(a) as being unpatentable over Kageyama and Engel is affirmed.

The rejection of claims 4, 10, 11, 18, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Kageyama, Engel, and Uchida is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

### AFFIRMED

msc

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